Inventions & Innovation Project Abstract

High Throughput, Continuous, Mass Production of Photovoltaic Modules

Since 1991, AVA Technologies has worked to develop significant innovations for low cost, high throughput photovoltaics (PV) manufacturing. Currently, 85 to 90 percent of the world's PV products are made from crystalline silicon (c-Si). Crystalline silicon has significant limitations including: high cost and limited availability of feedstock materials, energy intensive manufacturing and slow batch processing. This technology uses thin film CdTe which does not have these limitations. AVA technology has significantly lower raw materials and manufacturing costs than c-Si PV and other PV technologies.

Specialty electronic coatings are used as an electrode for AVA's PV devices. These materials are supplied by Acheson Industries which is a part of National Starch and Chemical (NSC is the US subsidiary of the approximately $10 Billion/yr, ICI Group). NSC manufactures critical products for the semiconductor, electronics and photonic industries. In addition, NSC has made a strategic decision to pursue PV. Thus, AVA Technologies PV technology provides a significant opportunity for NSC.

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